

## EAST Search History

## EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	30	257/e33.054	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/10 12:16
L2	229	257/e25.032	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/10 12:16
L3	936	257/e33.001	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/10 12:17
L4	327	257/e51.018	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/10 12:17
L5	310	257/e51.022	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/10 12:17
S1	308715	"257"/((13,79-103,918). ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 14:52
S2	0	("LED" or "light emitting") and ((P+ or n + ) with (Gan or "gallium nitride")) and ((p or n) adj (Gan or "gallium nitride")) and ((transparent) adj (electrode or conduct \$3)) and ((Ga or gallium) adj (layer)) and ((al or aluminum) adj (layer)) and ((Au or gold) adj (layer))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 15:04

S3	1	("LED" or "light emitting") and ((P or n) with (Gan or "gallium nitride")) and ((p or n) adj (Gan or "gallium nitride")) and ((transparent) adj (electrode or conduct \$3)) and ((Ga or gallium) adj (layer)) and ((al or aluminum) adj (layer)) and ((Au or gold) adj (layer))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 15:04
S4	5	("LED" or "light emitting") and ((P or n) with (Gan or "gallium nitride")) and ((p or n) adj (Gan or "gallium nitride")) and ((transparent) adj (electrode or conduct \$3)) and ((Ga or gallium) adj (layer)) and (al or aluminum) and (Au or gold)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 15:07
S5	0	S4 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 15:08
S6	26	("LED" or "light emitting") and ((P or n) and (Gan or "gallium nitride")) and ((transparent) adj (electrode or conduct \$3)) and ((Ga or gallium) adj (layer)) and (al or aluminum) and (Au or gold)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 15:10
S7	6	S6 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 15:10
S8	46	("LED" or "light emitting") and ((P or n) and (Gan or "gallium nitride")) and ((transparent) adj (electrode or conduct \$3)) and (al or aluminum) and p+	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 15:12

S9	830	("LED" or "light emitting") and (Ingan or Algan) and ((metal or electrode or conduct \$3) adj (layer)) and ((second) adj (metal or electrode or conduct \$3))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 15:15
S10	41	(p+ or n+) and S9	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 15:16
S11	42	"High concentration" and S9	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 15:17
S12	80	S10 or S11	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 15:17
S13	19	S10 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 15:17
S14	18	S11 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 15:17
S15	2	"20020096687"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 15:19
S16	17	"20020096687" or "6420736"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 15:20
S17	1428	("LED" or "light emitting") and (gan or "gallium nitride") and ((metal or electrode or conduct\$3) adj (layer)) and ((second) adj (metal or electrode or conduct\$3))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 15:21

S18	66	(p+ or n+) and S17	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 15:21
S19	29	S18 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 15:21
S20	8	S16 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 16:00
S21	15	("5789768"   "6169298"   "6204512"   "6207972"   "6225648"   "6287947").PN. OR ("6420736").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2008/01/05 16:21
S22	4	("LED" or "light emitting") and (AlgaN or IngaN) and ((ga or gallium) adj (layer)) and ((metal or conduct \$3 or electrode) adj (layer)) and ((Al or aluminum) adj (layer))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 16:32
S23	2937	("LED" or "light emitting") and (AlgaN or IngaN) and ((ga or gallium) with (layer)) and ((metal or conduct \$3 or electrode) with (layer)) and ((Al or aluminum) with (layer))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 16:35
S24	783	S23 and S1	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 16:36
S25	80	("preventive layer" or "protective layer") and S24	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 16:37
S26	48	S25 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 16:37

S27	0	"."	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 16:37
S28	5	("LED" or "light emitting") and (GaN) and ((Ga or gallium) adj (layer)) and ((metal or conduct\$3 or electrode) adj (layer)) and ((Al or aluminum) adj (layer))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 16:49
S29	400	("LED" or "light emitting") and (GaN) and ((metal or conduct \$3 or electrode) adj (layer)) and ((Al or aluminum) adj (layer))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 16:51
S30	188	((second) adj (metal or conduct\$3 or electrode)) and S29	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 16:53
S31	99	((second) adj ((metal or conduct\$3 or electrode) adj (layer))) and S29	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 16:54
S32	48	S31 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 16:54
S33	47370	("LED" or "light emitting") and (AlGaIn or InGaIn) and ((Al or aluminum) with (layer)) ((second) adj ((metal or conduct\$3 or electrode) adj (layer)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 17:11
S34	246	("LED" or "light emitting") and (AlGaIn or InGaIn) and ((Al or aluminum) with (layer)) and ((second) adj ((metal or conduct\$3 or electrode) adj (layer)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 17:11
S35	87	S34 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 17:12

S36	9	"6100174"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 18:04
S37	2	("LED" or "light emitting") and (metal-Ga) and (Gan adj layer) and Al	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 18:26
S38	36884	("LED" or "light emitting") and ((gallium or Ga) with (compound or layer)) and (Al or aluminum)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 18:29
S39	49	("LED" or "light emitting") and (GaTi or GaTiN) and (Al or aluminum) and Gan	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 18:30
S40	1	S39 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 18:30
S41	3	"2001022367"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 18:51
S42	264	("LED" or "light emitting") and ((Ga) adj (metal)) and Gan	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 19:00
S43	7	("LED" or "light emitting") with ((Ga) adj (metal)) and Gan	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 19:00
S44	0	S43 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 19:00
S45	2	((al or aluminum) adj (layer)) and S42	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 19:01

S46	253	(al or aluminum) and S42	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 19:02
S47	130	S46 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 19:02
S48	2346499	KR "22631"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 19:17
S49	416	("LED" or "light emitting") and (Gali ot Gatin) and (al or aluminum) and (Gan adj layer)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 19:21
S50	1	(third adj (metal or conductor or electrode) adj layer) and S49	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 19:22
S51	4	(second adj (metal or conductor or electrode) adj layer) and S49	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 19:25
S52	2	S51 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 19:25
S53	299	("LED" or "light emitting") and ("Gallium indium" or "gallium titanium") and (al or aluminum) and (Gan adj layer)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 19:29
S54	141	S53 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/05 19:29
S55	2	"20070029568"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/06 18:49

S56	3	"11319488"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/01/07 10:22
S57	34	("LED" or "light emitting") and ((P+ or n +) same (Gan or "gallium nitride")) and Al and (metal\$3 adj layer)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/06/25 15:03
S58	11	S57 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/06/25 15:07
S59	210	("LED" or "light emitting") and ((P+ or n +) and (Gan or "gallium nitride")) and Al and (metal\$3 adj layer)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/06/25 15:52
S60	127	S59 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/06/25 15:53
S61	122	light and S60	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/06/25 16:01
S62	3	("LED" or "light emitting") and (p adj transparent) and ((P+ or n+) and (Gan or "gallium nitride")) and (metal\$3 adj layer)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/06/25 16:39
S63	0	S62 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/06/25 16:40



S64	598342	("LED" or "light emitting") and (p adj transparent) or ("Indium-Tin Oxide" or "ITO") or ("Cadmium-Tin Oxide" or "CTO") or ("Titanium Tungsten Nitride" or "TiWN") and ((P+ or n+) and (Gan or "gallium nitride")) and (metal\$3 adj layer) and al	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/06/25 16:43
S65	36	("LED" or "light emitting") and ((p adj transparent) or ("Indium-Tin Oxide" or "ITO") or ("Cadmium-Tin Oxide" or "CTO") or ("Titanium Tungsten Nitride" or "TiWN")) and ((P+ or n+) and (Gan or "gallium nitride")) and (metal\$3 adj layer) and al	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/06/25 16:45
S66	14	S65 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/06/25 16:45
S67	41	("LED" or "light emitting") and ((p adj transparent) or ("Indium-Tin Oxide" or "ITO") or ("Cadmium-Tin Oxide" or "CTO") or ("Titanium Tungsten Nitride" or "TiWN")) and ((P+ or n+) and (Gan or "gallium nitride")) and (metal\$3 adj layer)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/06/25 17:10
S68	14	S67 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/06/25 17:11

S69	121	("LED" or "light emitting") and ((p adj transparent) or ("Indium-Tin Oxide" or "ITO") or ("Cadmium-Tin Oxide" or "CTO") or ("Titanium Tungsten Nitride" or "TiWN")) and ((P+ or n+) and (Gan or "gallium nitride"))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/06/26 08:45
S70	29	S69 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/06/26 08:47
S71	89	("3409809"   "3790868"   "3849707"   "4283118"   "4316208"   "4408217"   "4495514"   "4855249"   "4911102"   "4946548"   "5122845").PN. OR ("5369289").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2008/06/26 09:12
S72	59	S71 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/06/26 09:12
S73	55	("LED" or "light emitting") and ((p or n) adj ((transparent) or ("Indium-Tin Oxide" or "ITO") or ("Cadmium-Tin Oxide" or "CTO") or ("Titanium Tungsten Nitride" or "TiWN")) and (Gan or "gallium nitride"))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/02 14:44
S74	17	S73 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/02 14:45

S75	55	("LED" or "light emitting") and (((p or n) adj ((transparent) or ("Indium-Tin Oxide" or "ITO") or ("Cadmium-Tin Oxide" or "CTO") or ("Titanium Tungsten Nitride" or "TiWN")))) and (Gan or "gallium nitride"))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/02 14:48
S76	55	("LED" or "light emitting") and ((p or n) adj ((transparent) or ("Indium-Tin Oxide" or "ITO") or ("Cadmium-Tin Oxide" or "CTO") or ("Titanium Tungsten Nitride" or "TiWN")))) and (Gan or "gallium nitride")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/02 14:49
S77	17	S76 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/02 14:49
S78	556	("LED" or "light emitting") and ((p or n) adj ((transparent) or ("Indium-Tin Oxide" or "ITO") or ("Cadmium-Tin Oxide" or "CTO") or ("Titanium Tungsten Nitride" or "TiWN"))))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/02 14:50
S79	55	S78 and (Gan or "gallium nitride")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/02 14:51
S80	17	S79 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/02 14:51
S81	1982	("LED" or "light emitting") with (NP or NPN)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/02 15:51
S82	1	"11463499"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/07/08 09:34

S83	0	("LED" or "light emitting") and ((P or n) adj (+) and (Gan or "gallium nitride")) and ((transparent) adj (electrode or conduct \$3)) and ((Ga or gallium) adj (layer)) and (al or aluminum) and (Au or gold)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 11:52
S84	2887	("LED" or "light emitting") and p+	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 12:01
S85	2	("LED" or "light emitting") and ((P+ or n +) adj (Gan or "gallium nitride")) and ((P- or n-) adj (Gan or "gallium nitride")) and algan and (second adj metal)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 12:03
S86	2	("LED" or "light emitting") and ((P+ or n +) adj (Gan or "gallium nitride")) and ((P- or n-) adj (Gan or "gallium nitride")) and algan and (al adj layer)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 12:04
S87	1	("LED" or "light emitting") and ((P+ or n +) adj (Gan or "gallium nitride")) and algan and (al adj layer) and (gan adj substrate)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 12:07
S88	5	("LED" or "light emitting") and ((P+ or n +) adj (Gan or "gallium nitride")) and algan and (gan adj substrate)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 12:08
S89	507	("LED" or "light emitting") and ((P or n) adj (Gan or "gallium nitride")) and algan and (gan adj substrate)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 12:09
S90	0	(high adj concentration adj gan) and S89	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 12:13

S91	6	(high adj concentration adj gan)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 12:13
S92	163	((P+ or n+) adj (Gan or "gallium nitride"))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 12:20
S93	122	algan and S92	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 12:21
S94	65	S93 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 12:21
S95	98	S92 not S94	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 13:13
S96	22	S95 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 13:13
S97	8	((gallium adj electrode) or (gallium adj metal) or (gati)) and S89	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 13:46
S98	3	S97 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 13:46
S99	26	((gallium adj electrode) or (gallium adj metal) or (gati)) and (P or n) adj (Gan or "gallium nitride")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 13:58
S100	7	S99 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 13:58

S101	0	("gati" or "Gatin") and ((p+ or n+) adj gan)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 14:02
S102	113	("gati" or "Gatin") and gan	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 14:04
S103	2	S102 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 14:04
S104	5668	("gati" or Gatin or gaal or gasn or gaau or gacu or gaad or gain or gacr or gafe) and gan	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 14:10
S105	2201	("LED" or "light emitting") and S104	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 14:10
S106	678	S105 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 14:11
S107	3	((p+ or n+) adj gan) and S106	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 14:11
S108	5668	("gati" or "Gatin" or "gaal" or "gasn" or "gaau" or "gacu" or "gaad" or "gain" or "gacr" or "gafe") and "gan"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 14:14
S109	761864	("gati" or "Gatin" or "gaal" or "gasn" or "gaau" or "gacu" or "gaad" or "gain" or "gacr" or "gafe")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 14:15
S110	209	("gati" or "Gatin" or "gaal" or "gafe") and Gan	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 14:15

S111	32	S110 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 14:15
S112	0	((p+ or n+) adj (gan)) and S111	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 14:18
S113	499	Gan and ("Gallium barrier" or "gallium metal" or "gati" or "gatin" or "gaal" or "gallium alloy" or "gallium compound") and (aluminum barrier or aluminum electrode or aluminum layer or aluminum alloy or aluminum compound)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 15:30
S114	143	S113 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 15:31
S115	22	((gan adj base) or (gan adj substrate)) and algan and ((p+ or n+) adj gan)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 16:44
S116	4	S115 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 16:44
S117	2260	((gan adj base) or (gan adj substrate)) and algan	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 16:49
S118	52	((gan adj base) or (gan adj substrate)) and algan and (p+ or n+)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 16:50
S119	12	S118 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 16:50

S120	1	("Gallium barrier" or "gallium metal" or "gati" or "gatin" or "gaal" or "gallium alloy" or "gallium compound") and S119	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 16:53
S121	0	((gan adj base) or (gan adj substrate)) and (((p + or n+) adj gan) or ("high concentration" adj Gan)) and (Gaal or Gati or Gatin)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 18:31
S122	29	((gan adj base) or (gan adj substrate)) and (((p + or n+) adj gan) or ("high concentration" adj Gan))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 18:31
S123	6	S122 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 18:31
S124	2	"20050230688"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/13 18:40
S125	31	((gan adj base) or (gan adj substrate) or (gallium adj nitride adj substrate)) and (((p+ or n+) adj gan) or ("high concentration" adj Gan))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/14 09:29
S126	8	S125 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/14 09:29
S127	635	((gan adj base) or (gan adj substrate) or (gallium adj nitride adj substrate)) and (((p or n) adj gan) or ("high concentration" adj Gan)) and algan and (electrode or conduct \$3 or metal)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/14 10:23
S128	210	S127 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/14 10:23



S129	2	"20030107053"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/14 16:49
S130	22756	("LED" or "light emitting") and "Orga" or "vga" or "wga"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/14 16:56
S131	27	("LED" or "light emitting") and (metal or conductor) with ("Orga" or "vga" or "wga")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/14 16:57
S132	10	S131 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/14 16:57
S133	0	("LED" or "light emitting") and (metal or conductor) with ("Orga" or "vga" or "wga")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/14 17:27
S134	142	("LED" or "light emitting") and (metal or conduct\$3 or electrode) with ("Orga" or "vga" or "wga")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/14 17:28
S135	50	S134 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/14 17:28
S136	42	(metal or conduct\$3 or electrode) with ("Orga" or "wga")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/14 17:52
S137	12	S136 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/14 17:53
S138	964	(metal or conduct\$3 or electrode) with ("nial" or "ptal" or "pdal")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/14 17:58

S139	156	("LED" or "light emitting") and S138	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/14 17:58
S140	0	"11695759"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/05/15 11:02
S141	1505	("LED" or "light emitting") same (Algan) same (metal or electrode or conduct\$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/12/04 13:50
S142	500	S141 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/12/04 13:51
S143	4298	("LED" or "light emitting") same ((layer) with (Al or aluminum)) and GaN	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/12/04 14:28
S144	248	("LED" or "light emitting") same ((layer) with ((Al or aluminum) adj (compound or alloy or electrode or conduct\$3 or metal))) and GaN	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/12/04 14:30
S145	88	S144 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/12/04 14:31
S146	1550	("LED" or "light emitting") same ((layer) with ((Al or aluminum) adj (compound or alloy or electrode or conduct\$3 or metal)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/12/04 14:54
S147	577	S146 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/12/04 14:54

S148	577	S147 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/12/04 14:57
S149	489	S148 not S145	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/12/04 15:01
S150	50	"5929466"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/12/04 15:46
S151	3	("LED" or "light emitting") same (alingan) same (transparent adj layer)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/12/04 16:05
S152	2	S151 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/12/04 16:05
S153	58	("LED" or "light emitting") same (alingan) and (transparent adj layer)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/12/04 16:06
S154	6	S153 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/12/04 16:06
S155	3	(crga or vga or wga) with gan	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/12/18 11:01
S156	8	(nial or ptal or pdal) with gan	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/12/18 11:02
S157	1	S155 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/12/18 11:03

S158	4	S156 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/12/18 11:03
S159	24	(transparent aj electrode) same (n+ adj gan)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/12/18 11:06
S160	1	(transparent adj electrode) same (n+ adj gan)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/12/18 11:06
S161	12	"6602803"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/12/22 14:06
S162	34	"6144102"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/12/22 14:07
S163	2	"20070029568"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/05 12:26
S164	3805	slater.in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/05 14:41
S165	394	("LED" or "light emitting") and S164	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/05 14:42
S166	108	S165 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/05 14:42
S167	130	("LED" or "light emitting") and (((n+ or p+) adj (Gan)) or ((high adj concentrat \$3) adj (Gan)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/05 16:15

S168	240	("LED" or "light emitting") and (((n+ or p+) with (Gan)) or ((high adj concentrat\$3) adj (Gan)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/05 16:15
S169	23	("LED" or "light emitting") and (((n+ or p+) with (gallium adj nitride)) or ((high adj concentrat\$3) adj (gallium adj nitride)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/05 16:16
S170	249	S168 S169	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/05 16:16
S171	134	S170 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/05 16:16
S172	418	("LED" or "light emitting") and (((n+ or p+) with (Gan)) or ((high adj concentrat\$3) with (Gan)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/05 17:03
S173	178	S172 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/05 17:04
S174	48	S173 not S171	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/05 17:04
S175	425	("LED" or "light emitting") and (Ingan or Algan) and (p+ or n +)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/09 10:56
S176	215	S175 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/09 10:57
S177	22	"10057821"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/09 14:10

S178	2	"20030107053"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/09 14:37
S179	2778	("LED" or "light emitting") and (nial or ptal or pdal)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/09 14:42
S180	159	("LED" or "light emitting") and ((electrode or conduct \$3 or metal) with (nial or ptal or pdal))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/09 14:42
S181	26	S180 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/09 14:42
S182	2	"20030122147"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/09 14:52
S183	1	"10534489"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/09 15:03
S184	21	("LED" or "light emitting") and (vacancy adj structure)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/09 15:05
S185	6	S184 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/09 15:05
S186	229	("light emitting") and (vacancy with structure)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/09 15:06
S187	62	S186 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/09 15:06

S188	3	"20030001153"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/09 15:23
S189	229	("light emitting") and (vacanc\$3 with structure)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/09 15:37
S190	2	("6693352").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2010/08/09 15:38
S191	14	("20020096687"   "20020121637"   "20020146856"   "20030015708"   "20030107053"   "6420736"   "6693353").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/09 16:15
S192	14	S191 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/09 16:15
S193	65	("LED" or "light emitting") and ((electrode or conduct \$3 or metal) with (gati))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/10 10:45
S194	0	S193 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/10 10:45
S195	193	("LED" or "light emitting") and ((electrode or conduct \$3 or metal) same (gati))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/10 10:46
S196	0	S195 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/10 10:46
S197	596	("LED" or "light emitting") and ((gati))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/10 10:46

S198	9	S197 and @ad < "20021116"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/10 10:46
S199	327	257/e51.018	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/10 12:15
S200	310	257/e51.022	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/08/10 12:15

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